

**CLAIMS:**

What is claimed is:

1 1. A method comprising:

2 validating data in a plurality of virtual replicas  
3 of a storage device; and

4 identifying a last valid virtual replica from the  
5 plurality of virtual replicas, wherein later virtual  
6 replicas from the plurality of virtual replicas are  
7 invalid.

1 2. The method of claim 1, wherein validating the data  
2 includes scanning for viruses and the last valid virtual  
3 replica is found to contain no viruses.

1 3. The method of claim 1, wherein the plurality of  
2 virtual replicas represent contents of a database,  
3 validating the data includes verifying that the contents  
4 of the database are consistent, and the last valid  
5 virtual replica contains consistent database contents.

1 4. The method of claim 1, further comprising:

2 copying contents of the last valid virtual replica  
3 to the storage device, whereby the storage device is  
4 restored to a valid state.

1 5. The method of claim 1, further comprising:

2 in response to identifying the last valid virtual  
3 replica, producing an alert that an error has occurred.

1 6. The method of claim 1, further comprising:  
2       in response to identifying the last valid virtual  
3 replica, halting execution of a host computer.

1 7. The method of claim 1, wherein the virtual replicas  
2 are stored by a data management appliance.

1 8. The method of claim 8, further comprising:  
2       in response to identifying the last valid virtual  
3 replica, halting operation of the data management  
4 appliance.

1 9. The method of claim 1, further comprising:  
2       in response to identifying the last valid virtual  
3 replica, halting operation of the storage device.

1 10. A computer program product in a computer readable  
2 medium comprising functional descriptive material that,  
3 when executed by a computer, enables the computer to  
4 perform acts including:  
5       validating data in a plurality of virtual replicas  
6 of a storage device; and  
7       identifying a last valid virtual replica from the  
8 plurality of virtual replicas, wherein later virtual  
9 replicas from the plurality of virtual replicas are  
10 invalid.

1 11. The computer program product of claim 10, wherein  
2 validating the data includes scanning for viruses and the

3 last valid virtual replica is found to contain no  
4 viruses.

1 12. The computer program product of claim 10, wherein  
2 the plurality of virtual replicas represent contents of a  
3 database, validating the data includes verifying that the  
4 contents of the database are consistent, and the last  
5 valid virtual replica contains consistent database  
6 contents.

1 13. The computer program product of claim 10, comprising  
2 addition functional descriptive material that, when  
3 executed by the computer, enables the computer to perform  
4 acts including:

5 copying contents of the last valid virtual replica  
6 to the storage device, whereby the storage device is  
7 restored to a valid state.

1 14. The computer program product of claim 10, comprising  
2 addition functional descriptive material that, when  
3 executed by the computer, enables the computer to perform  
4 acts including:

5 in response to identifying the last valid virtual  
6 replica, producing an alert that an error has occurred.

1 15. The computer program product of claim 10, comprising  
2 addition functional descriptive material that, when  
3 executed by the computer, enables the computer to perform  
4 acts including:

5       in response to identifying the last valid virtual  
6 replica, halting execution of a host computer.

1   16. The computer program product of claim 10, wherein  
2 the virtual replicas are stored by a data management  
3 appliance.

1   17. The computer program product of claim 17, comprising  
2 addition functional descriptive material that, when  
3 executed by the computer, enables the computer to perform  
4 acts including:

5       in response to identifying the last valid virtual  
6 replica, halting operation of the data management  
7 appliance.

1   18. The computer program product of claim 10, comprising  
2 addition functional descriptive material that, when  
3 executed by the computer, enables the computer to perform  
4 acts including:

5       in response to identifying the last valid virtual  
6 replica, halting operation of the storage device.

1   19. A data processing system comprising:

2       means for validating data in a plurality of virtual  
3 replicas of a storage device; and

4       means for identifying a last valid virtual replica  
5 from the plurality of virtual replicas, wherein later  
6 virtual replicas from the plurality of virtual replicas  
7 are invalid.

1 20. The data processing system of claim 19, wherein  
2 validating the data includes scanning for viruses and the  
3 last valid virtual replica is found to contain no  
4 viruses.

1 21. The data processing system of claim 19, wherein the  
2 plurality of virtual replicas represent contents of a  
3 database, validating the data includes verifying that the  
4 contents of the database are consistent, and the last  
5 valid virtual replica contains consistent database  
6 contents.

1 22. The data processing system of claim 19, further  
2 comprising:

3 means for copying contents of the last valid virtual  
4 replica to the storage device, whereby the storage device  
5 is restored to a valid state.

1 23. The data processing system of claim 19, further  
2 comprising:

3 means responsive to identifying the last valid  
4 virtual replica, for producing an alert that an error has  
5 occurred.

1 24. The data processing system of claim 19, further  
2 comprising:

3 means responsive to identifying the last valid  
4 virtual replica, for halting execution of a host  
5 computer.

1 25. The data processing system of claim 19, wherein the  
2 virtual replicas are stored by a data management  
3 appliance.

1 26. The data processing system of claim 26, further  
2 comprising:

3 means responsive to identifying the last valid  
4 virtual replica, for halting operation of the data  
5 management appliance.

1 27. The data processing system of claim 19, further  
2 comprising:

3 means responsive to identifying the last valid  
4 virtual replica, for halting operation of the storage  
5 device.